

# **WEL-HANDY MULTI II Series**

# Heavy-Duty Multi Purpose Mechanized Welding Carriage

### **Features and Benefits**

- Two models:
  - WEL-HANDY MULTI-II TACK: Tack welding
  - WEL-HANDY MULTI-II WEAVING: Tack and Weaving welding
- NEW Crater fill function Automatically switches to crater amperage and travel backwards to process high quality crater filling.
- NEW Limit switch function
  Limit switch has dry-run function, which makes positioning of the carriage possible without lifting. (Patent pending)
- NEW Encoder drive motor and control Ensures precise speed control during welding.
- NEW Weaving control (only for weaving model)
  Weaving parameter is adjustable during welding. Easy operation with dial control.
- NEW Tack welding and Weaving at the same time.
- **UNCHANGED** Reliability, Robustness and Durability.

Light, compact, all wheel drive, magnetic force traction and a low center of gravity allows the **Wel-Handy Multi -II** to achieve the highest pulling power and stability in the marketplace today. are improved for the welder by reducing fatigue, fumes and sparks.



# Designed and built for heavy duty working environment

### Durable design, reliable performance

TACK welding is now standard

The all new advanced controller is easy to use and provides flexible welding experience with high quality results.

Compact and lightweight
 L259 x W259 x H264mm, at weight only 7.5kg.

#### Excellent durability

Maintenance free, single piece aluminium die cast body provides excellent protection against spatter, fume and dust.

50kg permanent magnet
 Ensures strong pulling power during horizontal and vertical welding.
 The magnet can easily be detached from the plate by a lever.

#### Low center of gravity

Provides stable performance even when climbing on a wall.

Durable roller and arm

Guide roller is made of single-piece cast aluminum for higher durability. Roller is protected against spatters.

- Heat resistant rubber 4-Wheel drive system
  Provides strong traction, ensuring high quality weld.
- Absolute dust measures Mono-design die-cast body casing with stainless steel bottom plate provides complete dustproof structure.
- 4-wheel drive system
  Provides stable traction and transmits the power to the plate efficiently.
- High stand off
  6mm stand off enables crossing over welding beads.

Easy setup

No guide rails required. Wel-Handy Multi guide itself along the fillet plate.

Limit switches at each end of the carriage

Automatic Shutdown at the end of the weld. Limit switches can be used to adjust machine starting position.



NEW : All-in-one Tack and Weaving controller



Dust resistant, single piece aluminium die cast body



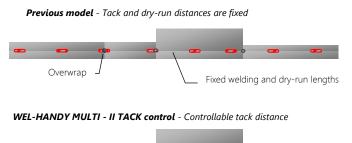


Multiple Wel-Handy Multi's in simultaneous operation

# The NEW Advanced tack controller

## Controllable tack welding distance

- Tack and dry-run distance can be controlled during welding just by simple click on a toggle switch.
- Equipped with encoder motor. WEL-HANDY MULTI -II TACK calculates travel distance by counting motor rotation, enabling accurate distance control.
- All parameter values are shown on the digital display for easier parameter management and repeatability.

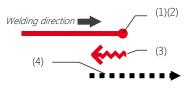




## Crater filling function(\*)

(\*) requires welding machine with crater function with matching control.

Automatically switches to crater amperage at the end of each weld for crater fill sequence.



- 1) At end of each weld, carriage gives signal to welding power source to switch to crater amperage.
- 2) Carriage stops for a set period of time
- 3) With crater amperage, carriage welds backwards at a set speed for a set distance
- 4) After crater sequence, carriage dry-runs to starting point of next tack weld (in tack welding mode)

# WU-5R Weaving Unit (Option for TACK, Standard with WEAVING model)

A Option for WEL-HANDY MULTI-II TACK to perform weaving welding. Includes mounting bracket. Weaving is controlled by encoder motor.

- Weaving speed (\*): 400 1500 mm/min
- Weaving widths:(\*) : 0 100.0 mm/min
- Stop timer (left/center/right): 0.0 10.0 seconds





# **Optional Accessories**





#### Twin torch option

- 2 torch fillet welding
- Upto 500mm fillet height
- Lightweight aluminum arms

#### Tubular follower guide

- Traverse by vertical guidance of curved plate using bearings on both sides of plate.
- Suitable for welding short pipes onto a plate.

#### Plate edge guide roller

- Roller adjustable by 50mm forward/backward
- Plate need to be 10mm thickness

#### Straight guide rail

- For butt welding in straight line.
- 2m long, 2x magnets included.







#### **Tandem torch option**

- Productivity improvement with tandem torch.
- Fan-shaped bracket suitable for delicate torch setting loaded.

#### **Compact Submerged Arc option**

- Makes Wel-Handy Multi an ultra compact carriage for submerged welding.
- Contact Koike for details.



#### Magnet lifting handle

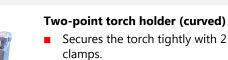
Makes magnet release much easier



#### Guide roller extension plate

Extends guide roller by 45mm. 





- Secures the torch tightly with 2
- Torch compatibility need to be checked.

#### Torch holder extension bar

- Extends the torch by 140-220mm.
- Suitable for butt welding using guide rail.



#### Weaving Unit WU-5R

- Add to WEL-HANDY MULTI-II TACK to enable weaving welding.
- Tack and weaving can be performed simultaneously with WEL-HANDY MULTI-II controller.



#### Clamp lever

Faster torch angle and position adjustment

Accessory	Stock #
Twin torch option	90216
Tubular follower guide	1115-1095-00
Plate edge guide roller	T61004332
Straight guide rail	61002282
Two-point torch holder (curved)	61000865
Torch holder extension bar	T61001223

Accessory	Stock #
Tandem torch option	on request
Compact Submerged Arc option	on request
Magnet lifting handle	T61001636
Guide roller extension plate	T61002102
Weaving unit WU-5R	90255
Clamp lever	T64000044
Transformer PR 100-240V-SEC 24V 65W	222.002.256

# **Application guide**

Model	ТАСК	TACK+WEAVING
Stock No.	90245	90246
Fillet weld	•	•
Butt weld	Guide rail option	Guide rail option
Tack / Stich weld	-	•
Vertical weld	•	•
Horizontal position	Guide rail option	Guide rail option
1 run 2 pass	Tandem torch option	Tandem torch option
Contour weld	Tubular follower guide option	Tubular follower guide option
Pendulum Oscillation	-	•
Dual pass	Twin torch option	Twin torch option
Overhanging weld	•	-
Sub-Arc	Compact SAW option	Compact SAW option
	·	• : possible

Ŕ R > 3000 mm



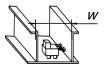
R > 3000 mm





 $L > 40 \ mm$ 





 $R > 1500 \ mm$ 

W > 300 mm







H < 37 mm

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L > 75 x 75 mm



Vertical up butt welding using guide rail



Twin torch option



# **Type and Specification**

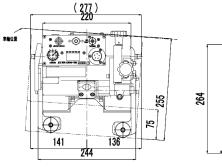
# Specifications

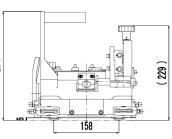
		WEL-HANDY MULTI-II TACK	WEL-HANDY MULTI-II WEAVING
Machine weight		7.5 kg	9.1 kg
Traction Force		16 kg	12 kg
Travel speed		50 ~ 1500 mm/min	
Tracking system		Fillet tracking guide roller	
Standoff (plate to ba	ase plate)	6 mm	
Magnet up/down mechanism		Magnet release lever	
Driving method		4-wheel Driving Rubber Roller (Chain Transmission)	
Magnet type		50 kg Permanent Magnet	
	Torch angle	40 ~ 55°	
Torch adjustment	Up/down	45 mm	
	Forward/backward	45 mm	
Torch holder diamet	ter	16 ~ 20 mm	
Automatic stop fund	tion	Limit switch on each end of carriage	
Unwelded lengths (s	start & end total)	approx. 270 mm approx. 305 mm	
Weaving unit		- included	
	Continuous	Yes	Yes
Welding method	Tack / Stitch	Yes	Yes
	Weaving / Oscillation	Optional	Standard
Power & signal cabl	e	Power and Signal intec (Carriage-branch: 6 m, Branch-Po	
Torch holder diamet	ter	16 ~ 20 mm	
Position adjustment	by limit switch	Yes	
Encoder motor for p	precise speed control	Yes	
Digital display		Yes	
Crater fill function		Ye	S
Input power		DC 24V	

### Types

Carriage Model		Stock #
WEL-HANDY MULTI-II TACK	DC24V	90245
WEL-HANDY MULTI-II WEAVING	DC24V	90246

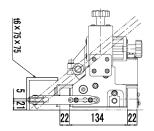
#### Dimension: WEL-HANDY MULTI-II TACK





### Scope of delivery

Scope of delivery	
Machine body	
Weaving unit (WEAVING model only)	
Power & signal cable	
Allen keys (2pcs)	
Operation manual	





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